

1 INSPECTION DEVICE FOR RADAR ABSORBING MATERIALS

4 ABSTRACT

6 (040) The invention is a device for inspecting an assembly including a surface
7 coating containing magnetic radar-absorbing materials on a conductive
8 surface. In detail, the device includes a first system for transmitting an
9 electromagnetic signal to the assembly, which includes a first waveguide made
10 of a conductive material coupled in series to a second waveguide made of a
11 dielectric material. A second system is provided for receiving the portion of the
12 electromagnetic signal reflected from the assembly, which includes a third
13 waveguide made of a conductive material coupled in series to a fourth
14 waveguide made of a dielectric material. Thus the electromagnetic signal is
15 transmitted from the first waveguide to the second waveguide on to the
16 assembly and the portion of the electromagnetic signal reflected off the
17 assembly is received by the fourth waveguide and transmitted to the third
18 waveguide.